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REMARKS

Claims 11, 13-16, and 18-20 are pending in the application. Claims 11 and 16 have been amended by the present amendment to incorporate subject matter from claims 12 and 17, which have been canceled without prejudice, and additional subject matter from the specification to define "picture quality" in terms of quantization parameter (see specification at pages 11-12).

Applicants appreciate the courtesy extended by Examiner Lee in conducting a telephone interview with Applicants' representative on June 21, 2005. During the telephone interview, Applicants' representative explained differences between the claimed invention and the O'Connell reference. The Examiner recommended that "picture quality" be further defined in the claims.

As amended, claims 11 and 16 define "picture quality" as a function of the quantization parameter (see specification at pages 11-12).

Applicants' claimed invention is directed to a method and an arrangement for motion estimation in a digitized image having pixels. As recited in claims 11 and 16, the sizes of first and second search areas are varied as a function of picture quality measured by **quantization parameter**. The quantization parameter is a measurement of "the quantization steps which were used to code the preceding picture" (see specification at page 11, lines 15-16). The size (S) of a search area is directly related to quantization parameter (QP) according to the following equation: $S = 15 - (QP/2)$. In other words, the size S of the search area for a picture block becomes larger as the quantization parameter is smaller, which corresponds to high picture quality (see page 11, lines 32-34).

Claims 11-20 were rejected under 35 USC 102(b) as being anticipated by U.S. Patent 5,537,155 to O'Connell et al. (hereinafter "O'Connell"). This rejection is respectfully traversed.

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Applicants' remarks in the Amendment filed on May 16, 2005 are incorporated by reference herein.

O'Connell does not teach or suggest a method or arrangement for motion estimation in which the sizes of first and second search areas are varied as a function of picture quality measured by quantization parameter such that if the quantization parameter of the first picture block is smaller than the quantization parameter of the second picture block, then the size of the first search area is larger than the size of the second search area, whereas if the quantization parameter of the first picture block is larger than the quantization parameter of the second picture block, then the size of the first search area is smaller than the size of the second search area.

In O'Connell, reference numerals 400 to 404 (cited as corresponding to the first and second search areas) actually refer to displacement patterns of different densities. For example, as indicated in column 5, lines 17-20, the first search point displacement pattern 400 "should be very dense," whereas the second search point displacement pattern 401 "should be moderately dense" (column 5, lines 23-27). These displacement patterns are used for comparing video blocks of a current video frame with video blocks of a previously stored video frame.
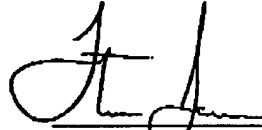
In contrast, the Applicants' claimed invention requires the sizes of first and second search areas to be varied as a function of **quantization parameter.**

In O'Connell, there is no teaching or suggestion of the use of **quantization parameter** to measure picture quality, nor any connection between the size of any search area and the **quantization parameter** of the respective picture block in such a search area. Therefore, even if the displacement patterns of O'Connell are considered "search areas," O'Connell does not teach or suggest any variation in the sizes of these displacement patterns as a function of **quantization parameter.**

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It is believed the application is in condition for immediate allowance, which action is earnestly solicited.

Respectfully submitted,

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